



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,591	06/29/2001	Miska Hannuksela	367.40300X00	5625

20457 7590 07/19/2004

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

CATHEY II, PATRICK H

ART UNIT PAPER NUMBER

2613

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,591

Applicant(s)

HANNUKSELA, MISKA

Examiner

Patrick H. Cathey II

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-3,5 and 7-34 is/are rejected.
- 7) ☐ Claim(s) 4 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10</u> . | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim 34 is rejected under 35 U.S.C. 102(a) as being anticipated by applicants admitted prior art.

As for claim 34, page 10 of the specifications teaches the identifying of an indication that a first frame should be encoded in a first frame format (note picture type of MPEG Header of I frame indicator format.) This also teaches associating indication (picture type) with the second frame to reduce the prediction path length (page 10, lines 1-10 suggests increasing I picture frequencies which is taught to reduce prediction path length.)

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim's 1, 2, 3, 5, 7, 8, 18-21, 23-27, 29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Zick.

As for Claim's 1, 18, 23, 24, 29 and 32, Zick teaches the identifying of a first indication associated with a first video frame that the first video frame should be encoded in the first compressed video frame format while associating the first indication with a second video frame (note GOP identifies a first format of I frames and their locations. See Col. 8, lines 20-30). He also teaches the encoding of a second video

Art Unit: 2613

frame in the first compressed video frame format (second or subsequent I frames are shown in figure 26). Defining the first set of video frames comprising of a certain number of video frames occurring prior to the second video frame (figure 26 note prior to I frames are encoded as P). He also teaches the encoding of the first set of video frames in the second compressed video frame format defining a second set of video frames comprising of another number of video frames occurring after the second video frame (figure 26 again shows P frames after the new I). The encoding of the second set of video frames is in the second compressed video frame format (Column 24, line 51 to Column 25, line 12). He also teaches programs and decoder limitations as required in 18, 23, 24, 29 and 32 (Column 25, line 61 to Column 26, line 24; Column 10, lines 44-67; See also figure 26; further note Col.2 line 50 where GOP has set format for the I's and the P's).

As for Claim's 2, 7 and 8, Zick teaches using I-pictures for the non-temporally predicted format and P-pictures for the temporally predicted format. He also teaches that the I-picture is associated with a scene cut as well as the first indication is a periodic I-picture request (Column 24, lines 51-61; See also figure 26).

As for Claim's 3 and 5, note that each I frame is surrounded in BB frames in figure 26.

As for Claim's 19-21 and 25-27, Zick teaches the use of the video encoder. There is a multimedia content creation system including a video encoder as well as a multimedia terminal with a video encoder (Column 9, lines 30-59). Zick also teaches

Art Unit: 2613

the same as just stated but with the use of a video decoder instead of the video encoder (Column 9, line 60 to Column 10, line 22; Column 10, lines 44-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim's 9-17, 22, 28, 30, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zick.

As for Claim's 9 and 13-15, although Zick fails to teach that the second video frame would occur substantially centrally within the group of frame, it would have been obvious for one of ordinary skill to locate the second video frame in the center of the GOP to all for refreshing more often (see for example Col.2, line 50) where the I frame is "near" the middle. Official Notice.

As for Claim's 10 and 11, most of the limitations of these claims have been noted in the above rejection of Claim's 7 and 8. Therefore, it would have been obvious for one of ordinary skill to use the claim of teaching that the I-picture is associated with a scene cut as well as the first indication is a periodic I-picture request and locate that centrally (Column 24, lines 51-61; See also figure 26).

As for Claim 12, it is understood that if errors occur, more I frames are requested. Official Notice.

As for Claim's 16, 17, 30, 31 and 33, although Zick fails to specifically teach the playback order, it should be noted that the MPEG standard allows for backward prediction which is encoded out of playback order. Therefore, it would have been obvious to one of ordinary skill to include playback order in the GOP to avoid B frames appearing in the order they were encoded. Official Notice.

As for Claim's 22 and 28, although Zick fails to teach specifically in his invention that the terminal is a radio telecommunications device, he does state in the background of the invention that recent advances show wide-band multimedia communication, fiber optics, and wireless communication greatly facilitate the distribution of multimedia data across networks. Therefore, it would have been obvious for one of ordinary skill to use a radio telecommunications device for the terminal.

Allowable Subject Matter

Claim's 4 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ando uses a method of picture encoding that changes I and P frames with a scene change.

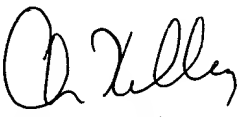
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick H. Cathey II whose telephone number is (703) 305-4909. The examiner can normally be reached on M-F 7:30 to 5:00 (Every other friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 503-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick H. Cathey II
Examiner
Art Unit 2613

PHC II


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600